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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/735,872	12/13/2000	Yigal Katzir	140/01667	9284

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EXAMINER

NGHIEM, MICHAEL P

ART UNIT

PAPER NUMBER

2861

DATE MAILED: 09/04/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/735,872

Applicant(s)

KATZIR ET AL.

Examiner

Michael P Nghiem

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-70 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 49-60 is/are allowed.
- 6) ☒ Claim(s) 1-48 and 61-70 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 13 December 2000 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 2,4,5.
- 4) ☐ Interview Summary (PTO-413) Paper No(s) ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

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DETAILED ACTION

Information Disclosure Statement

1. The Decker and Killius references, listed on the IDS filed May 31, 2001, paper number 4, have not been considered because the publication dates are not available.

Specification

2. Applicant is reminded of the proper language and format for an abstract of the disclosure.

The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.

"Comprising" (line 1) is improper.

The abstract contains less than 50 words.

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Claim Rejections - 35 USC § 112

3. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 1-48 and 61-70 are rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. Modulating a pulsed light at the data rate is not understood since the data rate has not been adequately defined in the specification.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-4 and 26-28 are rejected under 35 U.S.C. 102(b) as being anticipated by De Lange (US 3,447,856).

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De Lange discloses all the claimed features of the invention including:

- an apparatus and method for transmitting information at a data rate, comprising:
 - a pulsed light source (10) that produces pulsed light having a pulsed repetition rate (Fig. 1); and
 - a modulator (modulation means, column 3, lines 70-74) that asynchronously modulates the pulsed light at the data rate, wherein the data rate is higher than pulse repetition rate (column 1, lines 53-57);
 - the pulsed light source is a line source and wherein the modulator spatially modulates the line (column 1, lines 53-57);
 - the modulator independently modulates different sections of the line at the data rate (modulates 1 and 1', Figs. 2-5);
 - the pulsed light comprises a laser beam (Fig. 1).

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 5-25, 29-48, and 55-60 are rejected under 35 U.S.C. 103(a) as being unpatentable over De Lange in view of DeBenedictis et al. (US 4,205,348).

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De Lange further discloses the following claimed features of the invention:

- the pulsed light is produced utilizing a pulsed light generator (10) comprising a beam generator that produces an initial pulsed light beam having an initial pulse repetition rate (Fig. 2);
- a pulse repetition rate multiplier (11), which receives the initial pulsed light beam and produces at least one pulsed light beam having a higher pulse repetition rate than the initial rate (Fig. 3);
- a second repetition rate multiplier (12) that receives an output beam from the repetition rate multiplier and produces an output beam having a repetition rate higher than the repetition rate of the beam that it receives (Fig. 4);
- the first repetition rate multiplier and the second multiplication rate multiplier each double the repetition rate (column 2, lines 10-13);
- the increased pulse repetition rate is twice the initial pulse rate (Figs. 2-5);
- the increased pulse repetition rate is three times the initial pulse rate (Figs. 2-5);
- the increased pulse repetition rate is four times the initial pulse rate (Figs. 2-5);
- the increased pulse repetition rate is greater than four times the initial pulse rate (Figs. 2-5);
- the power contained in the higher repetition rate pulses is substantially equal to the power of the initial pulsed light beam (column 3, lines 68-70).

However, De Lange does not disclose the following claimed features:

- a scanner that scans the modulated pulsed light over the surface,

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- the modulated light scans over the surface in a first direction and wherein the surface moves in a direction perpendicular to the direction of scanning such that the surface is illuminated by a raster scan.

Nevertheless, DeBenedictis et al. discloses a scanner (27) that scans the modulated pulsed light over the surface (14), wherein the modulated light scans over the surface in a first direction (12, 13) and wherein the surface moves in a direction perpendicular (19) to the direction of scanning such that the surface is illuminated by a raster scan (Fig. 1) for the purpose of forming an image on the photosensitive surface.

Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to provide De Lange with a scanner as disclosed by DeBenedictis et al. for the purpose of forming an image on the photosensitive surface.

Allowable Subject Matter

6. Claims 49-60 are allowed.

Reasons For Allowance

7. The combination as claimed wherein a modulating signal responsive to the data signals for a time period longer than said time interval, such that the

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modulating signal is operative to modulate at least two successive pulses and wherein an attribute of the modulating signal changes between at least some of the two successive pulses (claim 49) or a wavelength converter external to the pulsed light source that receives said pulsed light and outputs wavelength converted pulsed light having second wavelength which is less than the first wavelength (claim 55) is not disclosed, suggested, or made obvious by the prior art of record.

Contact Information

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael Nghiem whose telephone number is (703) 306-3445. The examiner can normally be reached on M-H from 6:30AM – 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Hilten can be reached at (703) 308-0719. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 308-7724 for regular communications and (703) 308-5841 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.


MICHAEL NGHIEM
PRIMARY EXAMINER
Michael Nghiem

September 2, 2002